A Versatile, Environmentally-Friendly Foundry Binder System with a Proven Track Record in Meeting Today's Stringent Production and Environmental Demands.

Presented to the EPA Raleigh, NC, October 25, 2005



# Aspects of the presentation

- Description of the binder system.
- It's success in use.
- How the system reduces emissions?
- Results of any testing.
- Shortcoming during use.
- What type of binder can be replaced?
- Other contributions the binder makes to pollution prevention.

#### But first!

- To put everything in perspective
- Concept of pollution prevention

#### Pollution prevention

- The general idea about pollution is: something at the end of the pipe!
- This is wrong since pollution emerges at every step of the process
- During the process the workers are exposed
- This may be even more important than the end of the pipe!

#### Description of the binder system

- Based on alkali silicates
- Additives or adapted technologies will provide the performance required
- Our mission is to be environmentally-friendly
- Additives should be as well
- No compromise

## It's success in use

- Established in 1977!
- Suitable for any type of metal
- Suitable for any size casting
- Suitable for any type of sand
- The used sand can be reclaimed

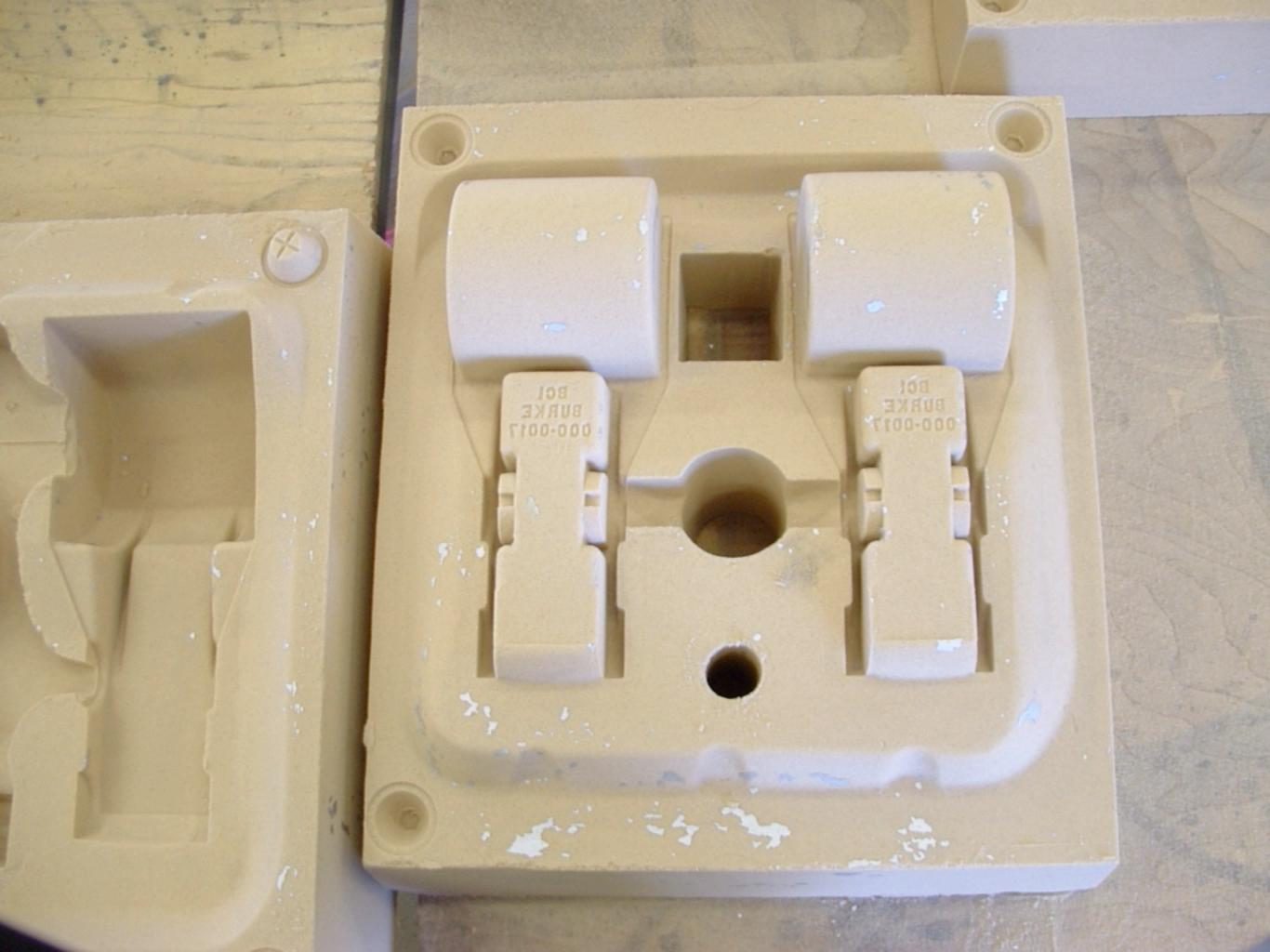
## Examples

Molds

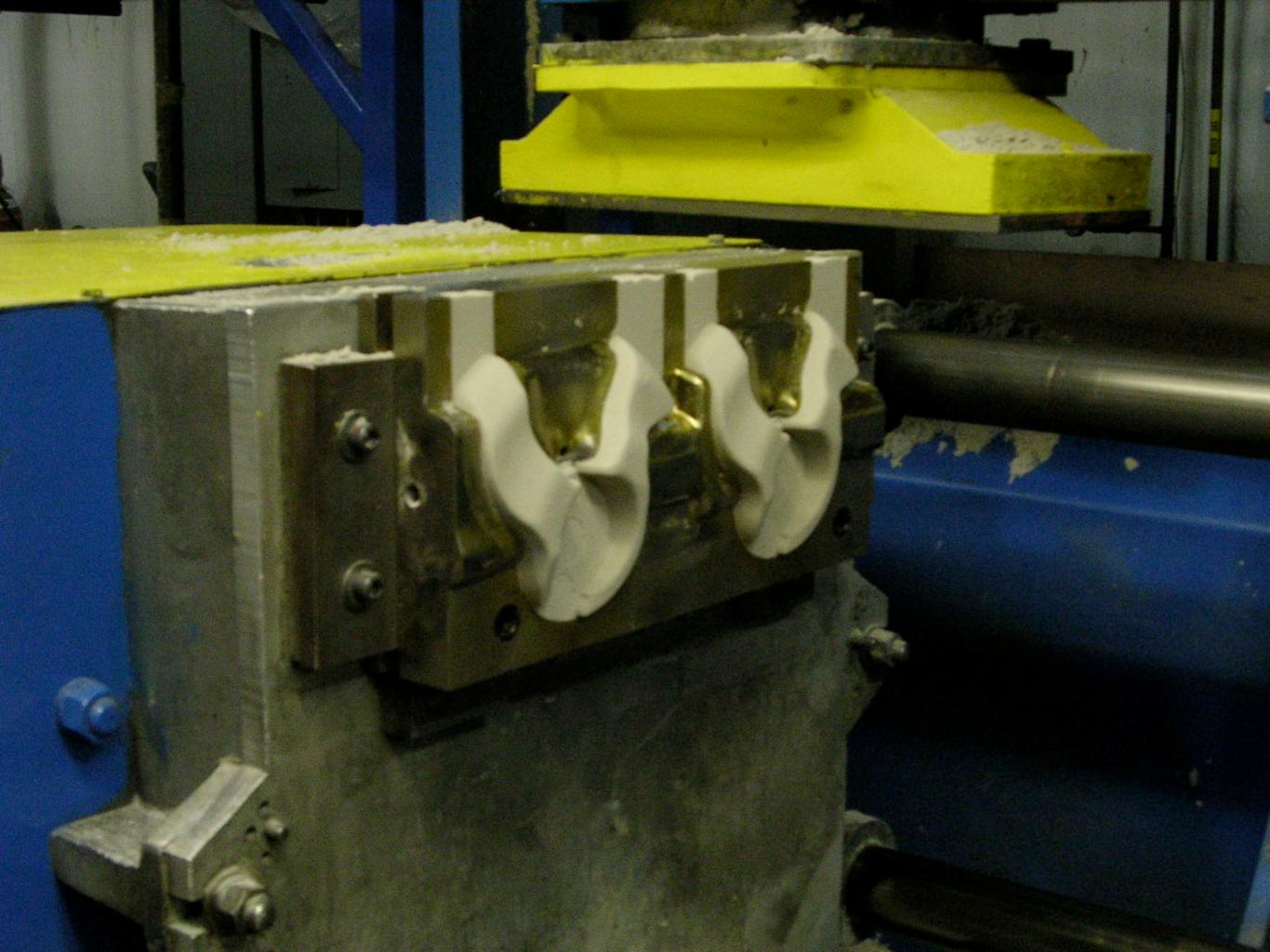








#### Cores













## Castings



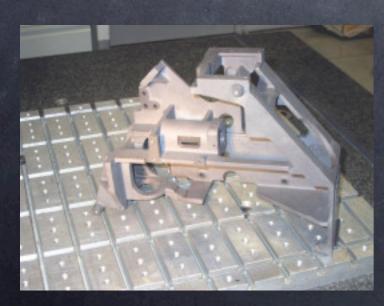






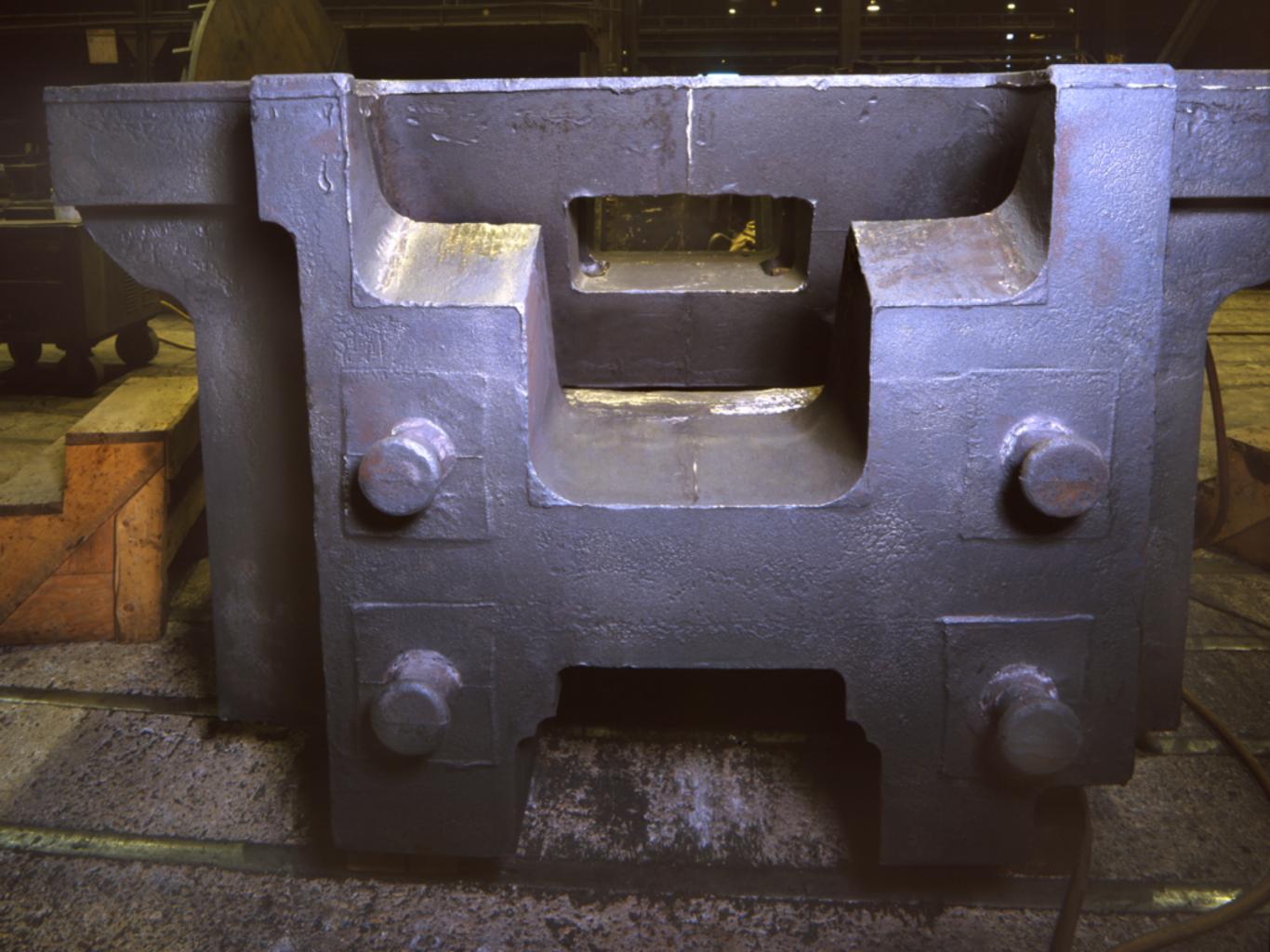














#### results of any testing

- Results on technology testing
- Results of environmental testing
  - emissions during work
  - emissions during casting
  - emissions on secondary material

#### Shortcoming during use

- Limited to sand casting
  - but we can tweak the binders to meet any need through FORMULATION or cost effective TECNHNOLOGY ADAPTATION

#### What type of binder can be replaced?

- Many applications
  - We have the fundamental knowledge
    - Chemistry
    - Machine technology

# Other contributions the binder makes to pollution prevention

We started with this